

**DRAFT SCREENING SITE INVESTIGATION
FOR THE
AMERICAN ALLOYS COMPANY
1939 EAST SERGEANT STREET
PHILADELPHIA, PENNSYLVANIA
ECKEL SITE NUMBER 49**

Prepared for

U.S. Environmental Protection Agency Region 3
Hazardous Property Cleanup Division
1650 Arch Street
Philadelphia, PA 19103

Prepared by

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1.0 INTRODUCTION

Under Remedial Action Contract (RAC) No. 68-S7-3002, Work Assignment No. 048-PAPA-03ZZ, U.S. Environmental Protection Agency (EPA) Region 3 tasked Tetra Tech, Inc. (Tt), to assist EPA Region 3 in the assessment of properties suspected to have been former lead smelter foundries. Tt subcontracted completion of this work assignment to Tetra Tech EM Inc. (Tetra Tech).

Former lead smelter sites nationwide were identified in an April 2001 article published in the American Journal of Public Health by Eckel, and others (Eckel study) (Reference [Ref.] 1). The majority of these lead smelters operated prior to 1964 and closed before the current environmental regulations were instituted. As part of the Eckel study, soil samples were collected from several of the identified former lead smelter properties. Results from the analysis of these soil samples indicated that concentrations of lead exceeded EPA's recommended screening level for lead in residential soils. The results of the Eckel study indicate that the air disposition of lead into soils from the former smelter operations may present an ongoing public health concern due to exposure of residential populations, especially children, located in the vicinity of these former lead smelters, to soils containing elevated concentrations of lead (Refs. 1, 2, and 3).

The Eckel study identified 77 properties that may have been formerly used as lead smelters within EPA Region 3 (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia). EPA Region 3 is currently investigating these 77 properties. The objective of EPA's investigation of these properties is to (1) determine the potential for lead-contaminated soil to be present at the former lead smelter site or nearby properties (2) identify any populations that may be at risk to exposure to this soil, and (3) determine if soil sampling is warranted at any of these sites or nearby properties.

The following activities were completed as part of the initial screening investigation of each of these former lead smelter sites: (1) verify the former lead smelter address listed in the Eckel study through historical Sanborn fire insurance maps, tax parcel information, and/or contacting local agencies, (2) determine if the site is listed in EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database, (3) determine through census information and existing maps the number of schools, daycare centers or recreational parks that exist near the former lead smelter site, (4) determine the population residing within a 4-mile radius of the site, (5) conduct a windshield reconnaissance of the site and surrounding area to document the current land use, identify any exposed soil and verify the existence of any schools, daycare centers or parks in the immediate area, and (6) review all information acquired to determine if the collection and analysis of soil samples is warranted at the site or at any nearby property.

This report summarizes the findings of the tasks outlined above for the former lead smelter known as the American Alloy Company site located at 1939 East Sergeant Street, Philadelphia, Pennsylvania, 19125. Each former smelter property was given a number in Eckel's study. The Eckel study number for this site is 49 (Ref. 1).

2.0 SITE LOCATION

The American Alloy facility was located at 1939 East Sergeant Street in Philadelphia, Pennsylvania, 19125. The geographic coordinates of the former American Alloy facility are 39.98673847° north latitude and 75.12681955° west longitude on the Philadelphia, Pennsylvania Quadrangle, 7.5 minute series, United States Geological Survey topographic map (see Appendix A, Figure 1). The site is not currently listed in EPA's CERCLIS database (Ref. 4). An aerial photograph of the vicinity of the former lead smelter site has been included in Appendix A, Figure 2. This aerial photograph reveals the exposed soils and any identified areas of potential concern such as schools, daycare centers, or parks located within a half-mile radius of the site.

3.0 SITE OBSERVATIONS

On September 6, 2005, Tetra Tech completed a non-sampling windshield reconnaissance of the American Alloy site and surrounding area. A photographic record of the current site conditions is included in Appendix B. Figure 3, shows the current layout of the site and surrounding area as observed during Tetra Tech's site reconnaissance. The following observations were recorded:

- The subject property at 1939 East Sergeant Street contains a large one story garage type building currently being used to store vehicles by an unknown owner. The property is approximately 30 feet wide by 90 feet long and extends to the northeast three fourths of the length of the block between East Sergeant and Hazzard Street.
- Residential row homes are located both north and south of the subject property on the east side of East Sergeant Street. Residential row homes located on Hazzard Street abut the subject property to the northeast. A weeded lot is adjacent to the subject property to the north.
- A community garden area is located on the southeast corner of East Sergeant Street and Emerald Street to the south of the subject property.
- Brown Elementary School is located directly across East Sergeant Street from the subject property. No exposed soil is located on the school property.
- In the immediate vicinity of the former lead smelter, exposed soil exists in yards of row homes located on East Sergeant and Hazzard Streets.

4.0 POTENTIAL TARGETS

Potential targets identified that may be exposed to lead-contaminated soils remaining in the vicinity of the former American Alloys site include the nearby residential population, children attending school, and any workers that may be employed at or in the nearby vicinity of the site. The residential population within a 4-mile radius of the site is summarized in the table below (Ref. 5).

Population Within a Four-mile Radius of the Site

Distance Ring (miles)	Population (number of persons)
0.0 to 0.25	4,236
0.25 to 0.5	12,575
0.5 to 1.0	56,171
1.0 to 2.0	110,421
2.0 to 3.0	184,972
3.0 to 4.0	257,655

Source: U.S. Department of Commerce. Landview V Environmental Mapping Software based on the Bureau of Census 2000 Population Data. December 6, 2005.

No daycare centers were identified within one-half mile of the site. Four schools were identified within one-half mile of the site. Brown elementary is located directly across the street from the site. Powers and Hunter Schools are located one-third mile northeast and southwest of the site, respectively. Miller School is located approximately one-half mile southwest of the site. A portion of Norris Square is located one-half mile southwest of the site.

5.0 FINDINGS AND RECOMMENDATIONS

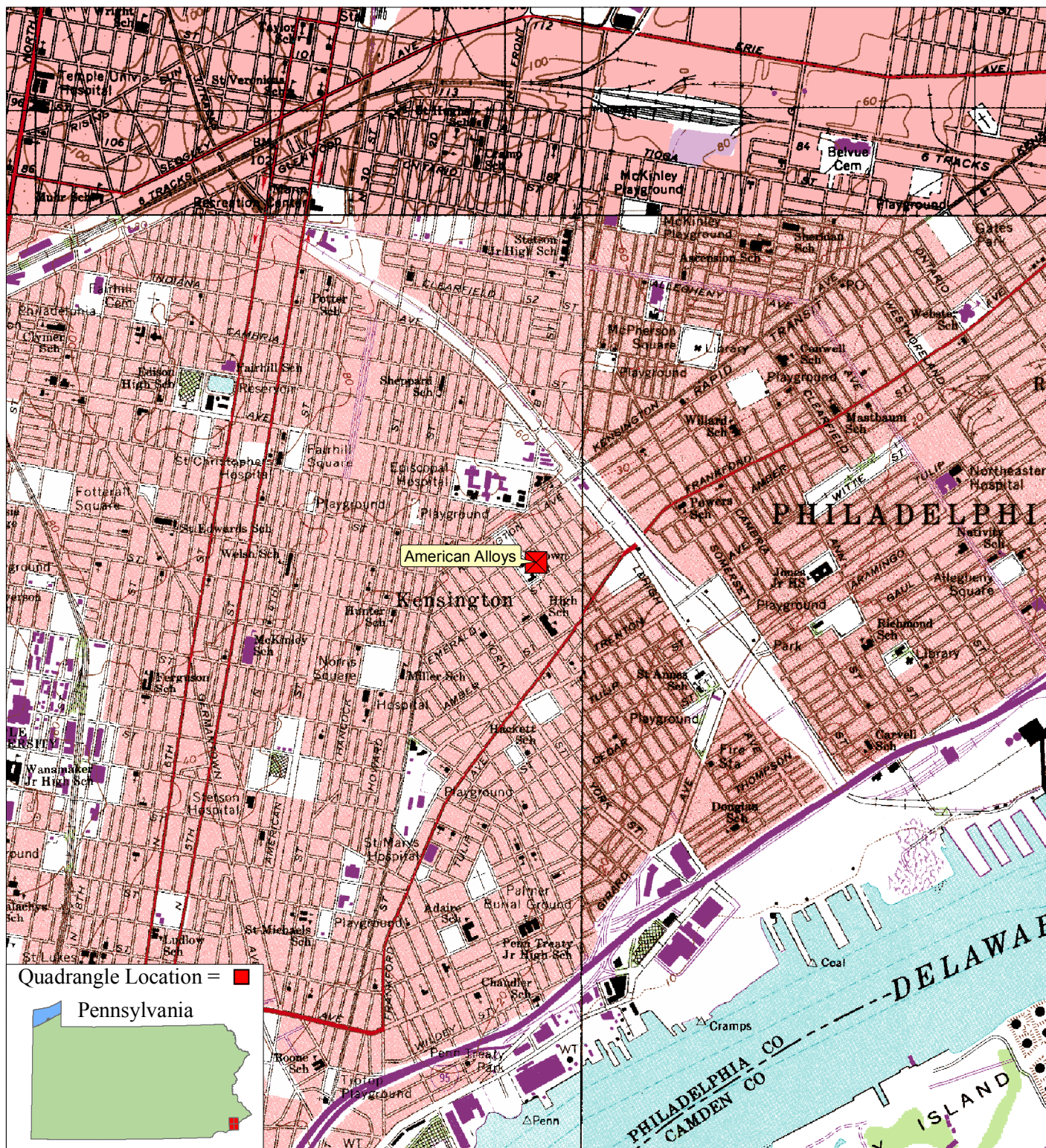
The site is located in a primarily residential area of Philadelphia, Pennsylvania. Exposed soils were observed in the yards of residential properties located adjacent to the former lead smelter. To determine if there is a threat to the residential population from elevated levels of lead in soils, it is recommended that soil samples be collected from nearby residential yards and analyzed for lead levels.

REFERENCES

1. Eckel, W.P., Rabinowitz, M.B., Foster, G.D. American Journal of Public Health. "Discovering Unrecognized Lead-Smelting Sites by Historical Methods". April 2001.
2. Pennsylvania Department of Health. Suspected Former Lead Smelter Sites: A Potential Risk Factor for Childhood Lead Poisoning. August 2004.
3. U.S. Environmental Protection Agency (EPA). Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities. OSWER Directive 9355.4-12. July 14, 1994.
4. U.S. EPA. Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) database. On-Line Address: <http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm>
5. U.S. Census Bureau. State and County Quick Facts. Accessed On-Line on December 6, 2005. On-Line Address: quickfacts.census.gov/qfd/states/42.html.

APPENDIX A

Figures



American Alloys Company
1939 East Sergeant Street
Philadelphia, Pennsylvania
Eckel Site No. 49

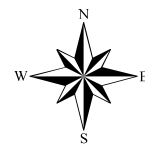
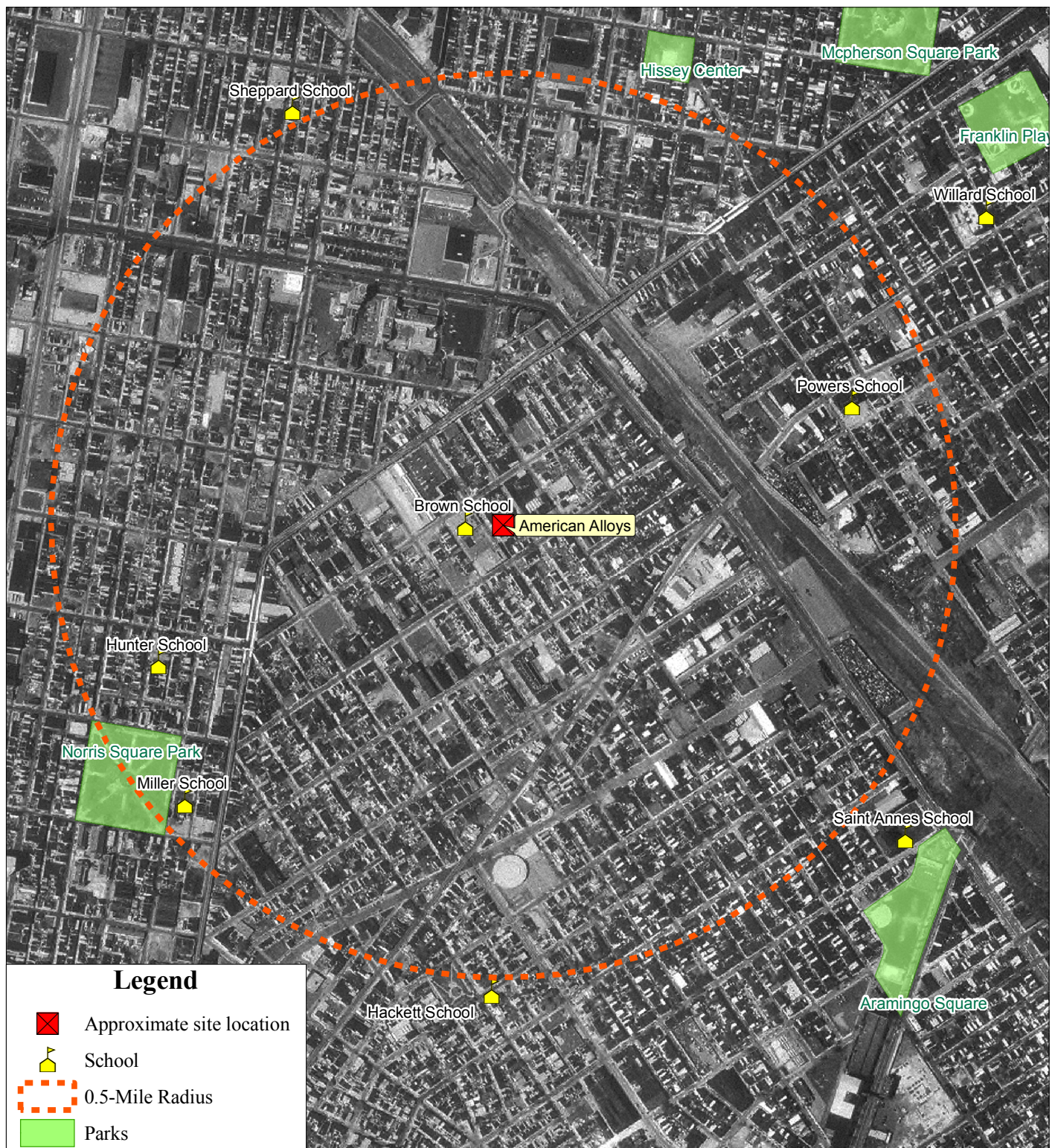


Figure 1
Site Location Map





Source: Modified from USGS 7.5-Minute Series Topographic Quadrangles, Camden, New Jersey-Pennsylvania; Frankford, Pennsylvania; Germantown, Pennsylvania; Philadelphia, Pennsylvania




TETRA TECH



Legend

-  Approximate site location
-  School
-  0.5-Mile Radius
-  Parks

0 500 1,000

 Feet
 Scale in Feet

American Alloys Company
 1939 East Sergeant Street
 Philadelphia, Pennsylvania
 Eckel Site No. 49

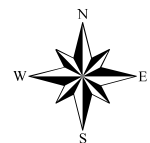


Figure 2
 Aerial Photograph

Source: Modified from Digital Orthophoto (DOQQ) MrSID mosaic for
 Camden Quadrangle (NAPP III, 1997-2001)
 Philadelphia Quadrangle (NAPP III, 1997-2001)





0 100 200
Feet
Scale in Feet

American Alloys Company
1939 East Sergeant Street
Philadelphia, Pennsylvania
Eckel Site No. 49



Figure 3
Site Layout Map

Source: Modified from Philadelphia City Planning Commission (PCPC) Department - GIS Division, 2006.



APPENDIX B

Photographic Documentation



Photographic Documentation

Site Name: American Alloys Company-Eckel Number 49

Location: 1939 East Sergeant Street, Philadelphia, Pennsylvania

Prepared by: Tetra Tech EM Inc.

Photographer: [REDACTED]

Photograph No. 1

Photograph Date:
September 6, 2005

Description: Facing North on the 1900 block of East Sergeant Street. View of the front of 1939 East Sergeant Street.



Photograph No. 2

Photograph Date:
September 6, 2005

Description: View of Brown Elementary School and associated school yard located at 1900 East Sergeant Street.





Photographic Documentation

Site Name: American Alloys Company-Eckel Number 49

Location: 1939 East Sergeant Street, Philadelphia, Pennsylvania

Prepared by: Tetra Tech EM Inc.

Photographer: [REDACTED]

Photograph No. 3

Photograph Date:
September 6, 2005

Description: Vacant lot and residential home adjacent to 1939 East Sergeant Street.



Photograph No. 4

Photograph Date:
September 6, 2005

Description: View of the back of 1939 East Sergeant Street from Hazzard Street.





Photographic Documentation

Site Name: American Alloys Company-Eckel Number 49

Location: 1939 East Sergeant Street, Philadelphia,
Pennsylvania

Prepared by: Tetra Tech EM Inc.

Photographer: [REDACTED]

Photograph No. 5

Photograph Date:
September 6, 2005

Description: Residential homes
along East Sergeant Street
adjacent to subject property.

